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REMARKS

Claims 1, 2, 4, 7, 8, 11, 15, and 18 were rejected under 35 UCS 103 as being unpatentable over Bishop et al, US Patent 6,377,782 in view of Jaakkola et al, US Patent 6,356,537. These claims are no longer in the case, but new system claims 24-35 and new method claims 36-38 are presented.

New system claim 24 defines a system that includes an integrator, and a user device. The integrator includes a broadband unit that interfaces with a remote site via a wireless broadband channel, a modulator/demodulator, and a LAN interface unit. Based on the Examiner's remarks in the November 5, '02 Office action, applicants gather that the Examiner combines the Bishop et al and Jaakkola et al references to effectively construct the integrator of the deleted claim 1. Therefore, these references are assumed to be pertinent to new claim 24.

Since claim 23 also specifies a user device that uniquely interacts within the defined system, and such an interaction feature is touched upon in claim 20, which was rejected (together with 5, 6, 12, 13, and 21-22) in view of the combination of Bishop et al, Jaakkola et al, and Mahany, applicants also assume that the cited Mahany reference is also pertinent to new claim 24.

Alas, the Office action failed to particularly identify the Mahany reference (no Patent number provided), so the undersigned spoke with Examiner Shah on Feb. 3, 2003, at which time the Examiner stated that he intended to cite US Patent 6,374,311. Applicants thank the Examiner for his prompt response to the query.

The '311 Mahany et al reference teaches a tree network of bridges that are either fixedly connected to a computer, or dynamically connected to a gateway (which, in turn, is fixedly connected to the computer) through RF links. The bridges are "attached" or "detached" within the network of bridges based on a need to communicate (in a wireless manner) with RF terminals. Ultimately, an RF terminal can obtain connectivity with the computer at the root of the tree by connection to one of the brides in the tree, and having the data move along the tree structure to the computer.

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Whether the Mahany et al reference qualifies as a local area network depends on whether a local area network is perceived to be one where peers can communicate with each other, but without doubt, what Mahany et al describe is a single network.

Combining the teachings of Mahany et al with those of Bishop et al and Jaakkola et al does not really add anything, since FIG. 1 of Bishop et al shows that client device 1,71 can communicate with NAID 6 and NAID 6,31.

In contradistinction, claim 24 specifies that the user device is conditioned to communicate with the site either via the local area network or via other than the local area network. Neither Bishop et al nor Mahany et al suggest such an arrangement.

It is noted that, in connection with claims rejection that includes the Mahany reference, the Examiner pointed to teachings in cols. 11 and 12, regarding "signal strength on channel 5", a "-92 dB" value, and a "-90dB" value (page 8 of the Office action). The '311 reference appears to have no teachings that involve a "channel 5," a "-92" value, or a "-90" value. This casts a doubt on the Examiner's identification of the '311 reference as the reference of interest in the February 3, 2002 telephone conversation. However, the other Mahany et al references also do not offer these teachings, so the situation is puzzling. If the Examiner meant to cite a different reference, applicants respectfully request that citation, and an opportunity to respond.

It may be further noted that one of the other Mahany et al references, US Patent 5,696,903, describes an arrangement that is similar to that of the '311 reference, without the tree-structured network but with the added capability of the mobile units (the RF terminals of the '311 reference) being able to communicate with wireless peripheral units. This, of course, is different from the definition in claim 24, wherein the user device can employ one of two different channels for communicating with the same remote site.

It may be still further noted that amended claim 24 specifies that the wireless broadband channel exists between a remote site and a building, and that the local area network is within the building. Neither Bishop et al nor Jaakkola et al teach this limitation.

Consequently, applicants respectfully submit that amended claim 1 overcomes the outstanding rejection, and is believed patentable over all of the cited prior art.

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Independent method claim 36 includes a similar distinguishing limitation. Specifically, claim 36 defines a step of

transmitting the user signal to an electronic device via a local area network within said building when said electronic device is conditioned to receive signals via said local area network, and refrains from transmitting said user signal to said electronic device when said electronic device is conditioned to receive signals via other than said local area network (emphasis supplied).

Additionally, not unlike claim 24, this step limits the local area network to be "within said building," which is a notion that is also not described by Bishop et al, Jaakkola et al, or Mahany et al.

Dependent claim 27 specifies that the user device makes a periodic determination as to whether it should be conditioned to communicate via one channel of the other channel. No such teaching is presented, or suggested, by the combination of references.

Dependent claim 30 specifies that the user device makes the aforementioned determination, and provides results of the determination to the integrator in response to an interrogation signal from the integrator. No such teaching is presented, or suggested, by the combination of references.

Dependent claim 31 specifies that the integrator participates in the decision as to whether the user device communicates via one of the channels, or the other of the channels. No such teaching is presented, or suggested, by the combination of references.

Claims 6, 16, 19, and 23 were rejected under 35 USC 103 as being unpatentable over Bishop et al in view of Jaakkola et al, and further in view of Miller et al, US Patent 5,930,247. Claims 6, and 19 are no longer in the case, and claim 16 is amended to depend on claim 36.

The Miller et al reference is cited for its teaching that "an EtherNet station/interface is an active LAN station, which can be wireless, is coupled to the cable modem for transmitting data signals." Applicants respectfully traverse. The Miller et al reference does show a cable modem 127 that is connected to a cable 129, but the connection between the cable modem and a port on WorldNet™ unit 175 is a hard-wired, cable, connection. At col. 2, lines 32 et seq. Miller et al state:

An EtherNet™ processor station 126, also connected to router 125, connects to a cable TV modem 127 receiving TC signals or data information, via coax (RG-6) cable 129. In appropriate circumstances,

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the EtherNet™ processor station may be a LAN station permitting the transmission of data into the LAN.

From this it is clear that all that Miller et al teach, with regard to the modem, is that a connection from the cable modem can be made to WorldNet™ unit 175, in addition to other devices, in a manner that "in appropriate circumstances" forms a LAN.

It is quite clear, in applicants' view, that the cited text does not teach the LAN being wireless, or being within a building, and says nothing about the connection to the cable being adapted to transmit signals to the cable modem.

In addition, in applicants' view, the Miller et al teaching is quite removed from the notion of a wireless LAN that may be used by a user device to communicate with an integrator that communicates with a remote site via a wireless broadband channel, and also used to communicate with a cable modem, in addition to being able to communicate with a remote site through other than the LAN, which is what claim 23 specifies.

As for amended claim 16, the Miller reference adds nothing that might make claim 36 obvious – on which claim 16 depends. Since claim 36 is not obvious in view of Bishop et al, Jaakkola et al, and Miller et al combination of references, it follows that claim 16 is also not obvious.

Claims 5, 6, 12, 13, and 20-22 were rejected under 35 USC 103 as being unpatentable over Bishop et al in view of Jaakkola et al, and further in view of Mahany. Claims 5, 6, 12, and 13 are no longer in the case.

Claim 20 is a method claim that specifies two channels to a particular "at least one broadband radio frequency signal." The method specifies that a signal strength and channel interference are measured for both channels. The method also defines a step of effecting a crossover from the first channel to the second channel when it is determined that the second channel is better. None of the systems cited by the Examiner teach or suggest such a method. The step of interrogating the electronic device, specified in claim 21, is also not taught or suggested in any of the cited references. Claim 22 depends on claim 20. It is respectfully submitted that claims 20-22 are not obvious in view of the cited references.

Claim 17 was rejected under 35 USC 103 as being unpatentable over Bishop et al in view of Jaakkola et al, and further in view of Boer, US Patent 5,706,428. Claim 17 is amended herein and, as amended, it is believed that that claim overcomes the rejection.

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In light of the above amendments are remarks, applicants respectfully submit that all of the Examiner's rejections have been overcome. Reconsideration and allowance are respectfully solicited.

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Respectfully,

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Appendix – Marked Up Version showing Changes Made

IN THE CLAIMS:

Delete claims 1-8.

Claims 9 and 10, previously deleted.

Delete claims 11- 15

16. (Twice Amended) The method according to claim 36[15], wherein the step of receiving is performed on signals received by an antenna, or a satellite dish.

17. (Twice Amended) The method according to claim 36[15], wherein [transmission of the at least one broadband radio frequency signal between the] said local area network is wireless [local area radio and the electronic device is through a local area antenna].

Delete claims 18 – 19.

20. A method of integrating fixed wireless broadband access and a wireless local area radio network, comprising the steps of:

determining a signal strength and a channel interference of a first signal channel source of at least one broadband radio frequency signal;

identifying a second signal channel source for the at least one broadband radio frequency signal;

determining a signal strength and a channel interference of the second signal channel source;

determining whether the second signal channel source is better than the first signal channel source; and

effecting crossover if it is determined that the second signal channel source is better.

21. The method according to claim 20, further comprising the step of:

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interrogating an electronic device to pass information relating to the at least one broadband radio frequency signal.

22. The method according to claim 20, wherein the determination of whether the second signal channel source is better than the first signal channel source is accomplished by a comparison of the signal strength and channel interference of each of the first and the second signal channel sources.

23. (Amended) The system according to claim [1] 24, further comprising a cable modem connected to a cable and having a wireless local area radio that operates in accordance with a schema that is the same as that in accordance with which the wireless local area radio of the integrator operates.

Please add the following claims: --

24. A system comprising:

an integrator including

a broadband interface unit coupled to a fixed wireless broadband access means, for interacting, via a broadband wireless channel, with a site that is remote from a building that houses said fixed wireless broadband access means,

a local area interface unit for interacting with a wireless local area network within said building, and

a modulator/demodulator interposed between said broadband interface unit and said local area interface unit; and

a user device adapted to communicate with said site via said local area network and said integrator, or via other than said local area network.

25. The system according to claim 24 where a determination is made as to whether said user device ought to be conditioned to communicate over said other than said local area network, or via said local area network and said integrator, based on transmission at said user device.

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26. The system according to claim 25, where said transmission quality is determined based on signal strength, or signal interference level, or both.

27. The system according to claim 25, where said user device periodically makes said determination.

28. The system according to claim 27, where said user device makes said determination in response to a signal from said integrator.

29. The system according to claim 27, where said device provides to said integrator results of said determination.

30. The system according to claim 29, where said user device provides to said integrator results of said determination in response to an interrogation signal issued by said integrator.

31. The system according to claim 27 where said integrator participates in decision whether said user device communicates to said local area network and said integrator, or via said other than said local area network

32. The system according to claim 25, where said user device makes said determination or in response to a signal applied to said user device.

33. The system according to claim 29 where said user device provides to said integrator results of said determination each time said user device performs said determination.

34. The system according to claim 24 where said device is conditioned to communicate with said site directly via said wireless broadband channel when it is conditioned to communicate over said other than said local area network.

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35. The system according to claim 27 where said user device decides whether said user device communicates to said wireless broadband channel via the integrator.

36. A method of integrating fixed wireless broadband access and a wireless local area radio network, comprising the steps of:

receiving a fixed wireless broadband signal from a source outside a building;
demodulating the fixed wireless broadband signal, processing the demodulated signal to obtain a user signal, and re-modulating the user signal; and
transmitting the user signal to an electronic device via a local area network within said building when said electronic device is conditioned to receive signals via said local area network, and refrains from transmitting said user signal to said electronic device when said electronic device is conditioned to receive signals via other than said local area network.

37. The method according to claim 36, further comprising a step of determining whether to condition said electronic device to receive signals via said local area network, or via said other than said local area network.

38. The method according to claim 37, wherein said electronic device, when conditioned to receive signals via other than said local area network, is conditioned to receive signals from said source directly.

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